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Debjit Das Sarma

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EXAMINER

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ART UNIT

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/730,800
Filing Date: December 09, 2003
Appellant(s): SARMA, DEBJIT DAS

Anthony M. Petrode
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 08/18/2008 appealing from the Office action mailed 03/20/2008.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-22 are directed to apparatus and method for merely performing manipulations and calculations of data values in calculating a product of multiplying two numbers. In order for a such a claimed invention that merely involves manipulation and calculation of data values to be statutory, the claimed invention must accomplish a practical application, and is not directed to a preemption of a calculation and/or manipulation data . That is the claimed invention must transform an article or physical object to a different state or thing, or produce a useful, concrete and tangible result and not cover every substantial practical application . See State Street 47 USPQ2d, Benson 175 USPQ , and “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility”, OG Notices: 22 November 2005. It is clear from claims 1-22 that the claims merely involve in calculations and manipulations of data, such as performing logic operations to generating partial products, and performing additions of the partial products to produce a final result product. The claimed invention does not transform an

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article or physical object to a different state or thing. The inputs are numerical values and the output is also a numerical value. The result produced by the inventions, which is a mathematical product of multiplying the two numbers, do not have a real world value but a mere number without a practical application recited in the claims to make the result useful, concrete and tangible. Therefore, claims 1-22 are directed to non-statutory subject matter as the claimed invention fails to accomplish a practical application. Further, since the claims do not limit the invention to a practical application, they cover every substantial practical application, and thus are also directed to a preemption of the claimed manipulation and calculation of data to any and every practical application.

(10) Response to Argument

First, it is respectfully submitted that the claims are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter because the claims are directed to a method and apparatus for performing calculation but fails a practical for the invention to transform an article or physical object to a different state or thing, or to produce a useful, concrete and tangible result as set forth in *State Street* 47 USPQ2d, *Benson* 175 USPQ, and "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility", OG Notices: 22 November 2005; and also because the claims cover every substantial practical application and thus directed to a preemption of the claimed calculation of data to any and every practical application.

The examiner agrees that in *Gottschalk v. Benson*, 409 U.S. 64 (1972), one of a reason that the claims are denied as being directed to a statutory subject matter is because the claimed

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invention "were not limited to any particular art or technology, to any particular apparatus or machinery, or to any particular end use." However, it is never stated in Benson that an invention limited to a particular art or technology, to any particular apparatus or machinery, or to any particular end use is directed to statutory subject matter. In fact, it is clearly set forth in Benson, and also in Alappat, AT&T, and State Street that for an invention to be statutory the claimed invention must further accomplish a practical application to either transform an article or physical object to a different state or thing, or produce a useful, concrete and tangible result, and not to cover every substantial practical application.

Further, in Alappat, it is clear that "data, transformed by a machine through a series of mathematical calculations" is not sufficient, but with the addition of producing useful, concrete and tangible result as "to produce a smooth waveform display on a rasterizer monitor", the invention "constituted a practical application of an abstract [algorithm], because it produced 'a useful, concrete[,] and tangible result'--the smooth waveform." It should be noted that in Alappat, the result produced by the invention is not a mere particular kind of mathematical result, but a real world result indicating the anti aliased pixel illumination intensity and thus is a useful, concrete and tangible result. Such a useful, concrete and tangible result is also required in States Street and AT&T. Thus, particularly claimed combination of elements performing the particularly claimed combination of calculations, or reciting a specific machine that perform a calculation is not sufficient for the invention to be statutory. This is because a specific machine does not automatically constitute a practical application. Therefore, for a claimed invention to constitute a practical application, the claims must recite a practical application for the invention

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to produce a useful, concrete and tangible result or to transform an article or physical object to a different state or thing.

In the present application, it is respectfully submitted that the method of claims 10-15, the microprocessor of claims 16-22 and even the detail floating point multiplier circuit of claims 1-9, do not fall squarely within the holdings of Alappat, State Street and AT& T because the invention fails to produce a useful, concrete and tangible result even though it is directed to a specific apparatus as recited in claims 1-9. The result produced by the invention is a mere mathematical result, which is a product of multiplying two number. The mathematical result clearly have no real world value because there is no practical application of the invention recited in the claim to make the result useful, concrete and tangible. It should be note that the effect of reducing costs in terms of die size and power consumption is not recited in the claims, and is not the result produced by the claimed invention. Rather, they may be improvements in calculations of the invention. The result produced by the invention is the mathematical product of multiplying two numbers that is obtained from the first carry propagate adder phase and the second carry propagate adder phase.

Further, in States street the claims clearly limit the calculation of the invention to a practical application of managing a financial service and to produce a useful, concrete and tangible result - a final share price. In Alappat, the claims clearly limit the calculation of the invention to a practical application of converting an input waveform into anti-aliased pixel illumination intensity data to be displayed on a display means and to produce a useful, concrete and tangible result - a smooth waveform. In AT&T, the claims clearly limit the calculation of the invention to a practical application in a telecommunications system in which interexchange

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calls initiated by each subscriber are automatically routed over the facilities of a particular one of a plurality of interexchange carriers associated with that subscriber and to produce a useful, concrete and tangible result - a primary interexchange carrier (PIC) indicator included in a message record for an interexchange call between an originating subscriber and a terminating subscriber. These claims clearly do not preempt the calculations to any other practical application. The claims of present invention, on the other hand, do not limit the invention to any practical application, and the invention produce a mere mathematical result -a product of multiplying two number. Since the claims do not limit the invention to any practical application, they cover every substantial practical application, and thus are directed to a preemption of the calculations of invention to any and every practical application.

In addition, it should be noted that claims 10-22 are not directed to a specific apparatus as the appellant asserted. Indeed, claims 10-15 are clearly directed to a method for performing multiplication. Any and every device including a computer or a calculator used to implementing the method would read on the multiplier circuit in the claims. Also, claims 16-22 are not directed to a specific apparatus, but merely recite a computer implementing the multiplication method of claims 10-15. Therefore, claims 10-22 are clearly preempting an implementation of the claimed data calculations and manipulation in any and every device or computer.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

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